

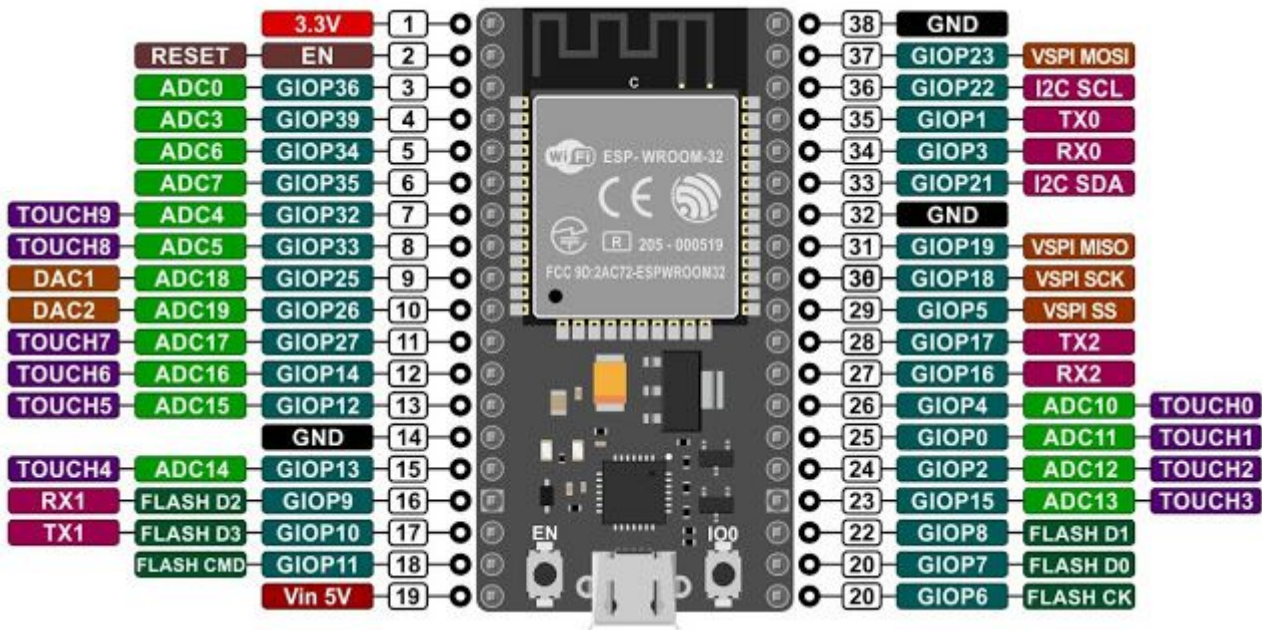
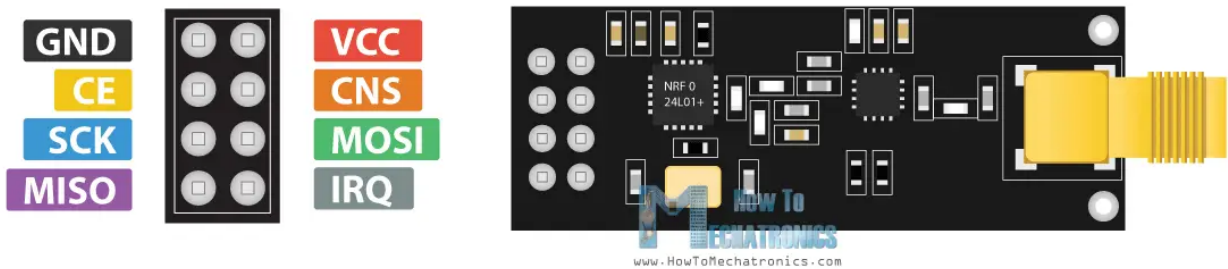
BlueJammer

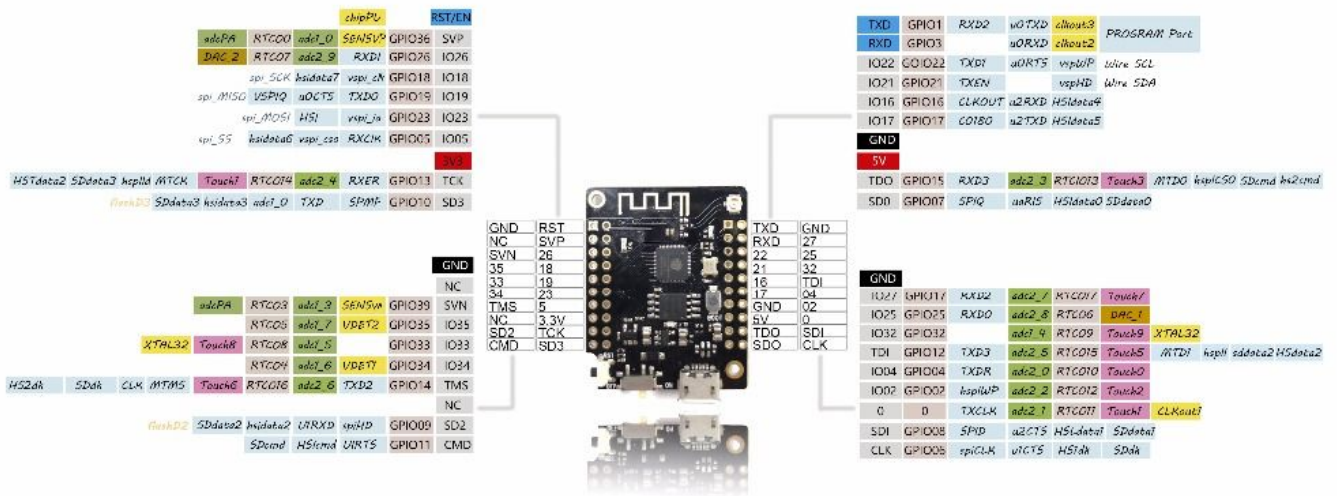
- <https://github.com/EmenstaNougat/ESP32-BlueJammer> → solo binarios
- <https://github.com/cifertech/RF-Clown> → código

NRF24L01 Pinout



NRF24L01+ PA/LNA Pinout





WiFi + Bluetooth Board
4MB Flash MINI 32 v2.0

Power
 ESP32 VCC range: 2.2V-3.6V
 VBAT: direct to battery (and charger)
 VUSB: direct to USB (5V)
 VCC: Output of regulator 3.3V/600mA
 Up to 250mA during RF transmissions

Wireless
 Wifi: 802.11 b/g/n/e/i
 WPA/WPA2/WPA2-Enterprise/SPS
 Bluetooth: Bluetooth 4.2/BLE

ESP32
 Dual-core Xtensa 32-bit LX6
 Up to 240MHz
 520kB internal SRAM
 4MB external flash

Multiplexed I/Os allow up to
 18 ADC channels
 3 SPI interfaces
 3 UART interfaces
 2 I2C interfaces
 16 LED PWM outputs
 2 DACs
 10 Capacitive Touch Inputs

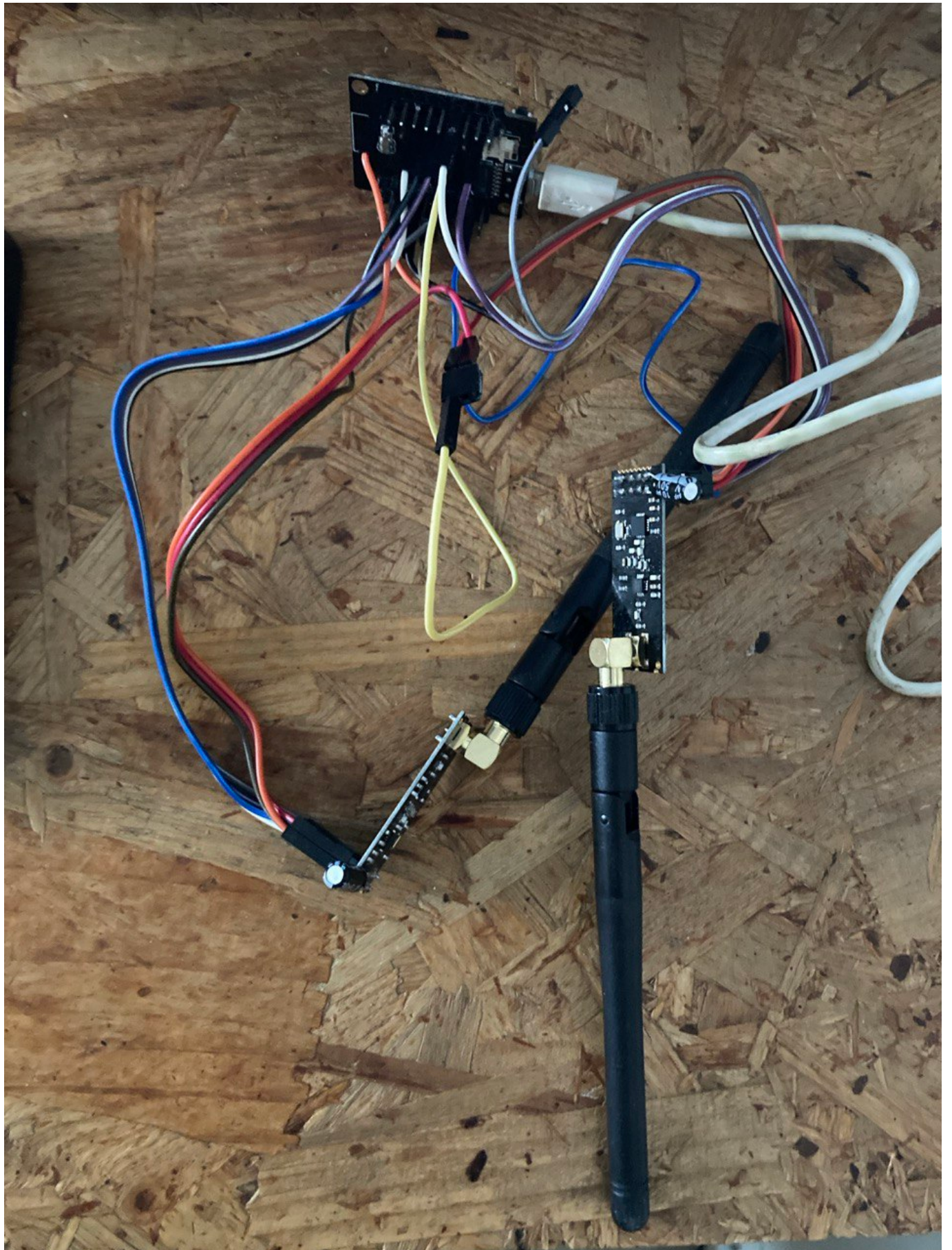
ADC Preamp
 GPIO pins 36, 37, 38, and 39 are able to be used as a low noise analog pre-amplifier

Other*
 Hall Sensor
 Temp sensor (-40C to 125C)
 SD/SDIO/MMC Host Controller
 CAN Bus

*On datasheet, but may not be supported yet

Name	ADC
Power	DAC
GND	SPI
Control	UART
Arduino	Touch
GPIO	Misc

*GPIO: Port Input Only
 *ADC: Pre-amplifier ADC
 GPIO 3.3V tolerant only



ESP32-nRF24L01+ pinout + battery mod

Here are both pinouts for HSPI and VSPI. You need both nRF24L01 modules connected in order to achieve full capability of the device.

[nRF24L01+ pinout](#)

HSPI

1st nRF24L01 module Pin	HSPI Pin (ESP32)	10uf capacitor
VCC	3.3V	(+) capacitor
GND	GND	(-) capacitor
CE	GPIO 16	
CSN	GPIO 15	
SCK	GPIO 14	
MOSI	GPIO 13	
MISO	GPIO 12	
IRQ		

VSPI

2nd nRF24L01 module Pin	VSPI Pin (ESP32)	10uf capacitor
VCC	3.3V	(+) capacitor
GND	GND	(-) capacitor
CE	GPIO 22	
CSN	GPIO 21	
SCK	GPIO 18	
MOSI	GPIO 23	
MISO	GPIO 19	
IRQ		

Firmware upload

- Descarga binarios para bootloader, particiones y firmware de <https://github.com/EmenstaNougat/ESP32-BlueJammer/archive/refs/tags/ESP32-BlueJammer-v2.zip> dentro de la carpeta Firmware_Files están los archivos
- El instalador web no funcionó (<https://esp32-bluejammerflasher.pages.dev/>)
- Se sube el firmware usando esptool

```
└─λ # Upload with bootloader and partitions (if you have separate files)
    esptool --chip esp32 --port /dev/ttyUSB0 --baud 921600 \
            --before default_reset --after hard_reset \
            write_flash 0x1000 bootloader.bin \
            0x8000 partitions.bin \
            0x10000 firmware.bin
```

El firmware una vez cargado de manera exitosa arranca pero presenta errores al momento de leer los chips nRF24

```

#####
ESP32-BLUEJAMMER
#####

Firmware : Combo-Channel-Select (BT-BLE-WiFi-RC)

BY EME NSTA

#####

!Educational purposes only!

https://github.com/EmenstaNougat/ESP32-BlueJammer

I'm not responsible for your actions!

#####

VSPI - FAILED

!!! SP (standard power) start failure! VSPI nRF24 module could NOT be initialized! #####

#####

HSPI - FAILED

!!! HP (high power) start failure! HSPI nRF24 module could NOT be initialized! #####
State 1: Bluetooth

```

Referentes

- <https://lastminuteengineers.com/nrf24l01-arduino-wireless-communication/>
- <https://grabcad.com/library/nrf24l01-pa-lna-1>
- <https://github.com/Steffen-W/Import-LIB-KiCad-Plugin#use-of-the-application>

From: <https://wiki.unloquer.org/> -

Permanent link: <https://wiki.unloquer.org/personas/brolin/proyectos/hardwarehacking/bluejammer?rev=1761074832>

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